helo

GENUINE SAUNA & STEAM

User Manual **RONDO**

Type information	**Power**
1108-961-1705	**9.6kW**
1108-651-1705	**6.5kW**
1108-451-1705	**4.5kW**

Voltage: 400 V 3N~

General:

- Read the User Manual carefully.
- These instructions should be kept by the user of the heater.
- Turn the heater so that the lid over the electricity points can be opened easily for connection and maintenance.
- The mains switch and the overheating limiter reset are located in the bottom part of the front lid.
- Before use it must be checked that the insulation rings are located correctly and are undamaged. The stones are placed in the manner instructed in the User Manual. Otherwise the use of the heater is prohibited and the guarantee will not compensate for any damages caused.
- Pre-heat the heater at full power for at least 2 hours. Storage grease is removed from the heater by this heating. If further odour still occurs, heat the heater for as long as necessary. Ensure sufficient ventilation during the heating times. A door or a window must not be left open during the heating.
- **NOTE! All the capacity measurements have been calculated for fully heat-insulated saunas.** All reserving heaters, such as Rondo, require a fully heat-insulated sauna. The insulation has a critical effect on the functioning of the sauna and therefore it is recommended that the heat insulation is undertaken carefully.
- The control panel is intended to be installed next to the heater in the area outlined in the manual.
- Maximum heating time for the use of the sauna using full power is 2 hours.
- Adhere to the given installation measurements.
- Only one heater may be installed into a sauna.
- Wood panelling is recommended as material for the walls and ceiling of the sauna.
- NOTE! Prior to switching the heater on, ensure that the sauna room is ready for heating.
- If any problems occur, contact the nearest authorized service agreement centre. Information can be found in a separate appendix or via the internet address: www.helo.fi

Installation of the sauna heater:

- The heater represents an upright model standing on the floor. The foundation has to be solid as the weight of the heater is approximately 130kg stones included.
- The heater is installed using the adjustable legs.
- The heater is fixed using the adjustable legs with the supplied metal fastenings which prevent the change of protection distances during use.

Connecting the heater to the mains:

- Connection of the heater and the control centre to the mains can only be carried out by an authorised person in accordance with the current electricity regulations.
- The heater is semi-connected to the mains with H07RN-F (VSN) or A07BB-F(VSB) rubber cable.
- The heater has a connector (55) for the control of the alternating of the electrical heating. Voltage enters the connector at the same time as the full power for resistors is in use.
- When using the lighting control of the heater controller the maximum permitted load is 100W.
- **When testing the heater functions the heater should not be heated without the stones.**

Heater stones

- It is recommended that the stones used in the heater are the ones supplied by the manufacturer.
- Wash and load the stones.
- The stones should be sufficiently large in order to provide an airy loading which is not too dense.
- Heat resistors must not be wedged together nor against the heater frame.
- The largest stones in the stone packages are loaded below the resistors so that the radiation heat of the resistors will not heat the base of the stone space.
- The stones should be reloaded sufficiently often. A good rule of thumb is that annually there should be as many reloadings as the times the sauna is being used in a week.
- In connection with the reloading small and crumbled heater stones should be removed as they prevent the transfer of the heat away from the resistors and thus significantly shorten the life cycle of the resistors.
- **The guarantee will not compensate for any damage caused by small, crumbled, poor-quality or tightly loaded stones!**
- **Use of ceramic stones is strictly forbidden! The guarantee will not compensate any damage caused by them!**

INSTALLATION OF HEATER STONES AND INSULATION RINGS

Before the installation of heater stones and insulation rings the heater has to be installed into its location and its electrical connections secured. Moving of the heater while it is full of heater stones may damage the heater / floor.

- Remove the insulation rings before the loading of the heater stones.
- Lift the top insulation ring directly upwards.
- Loosen the allen screws (2 pcs, see arrows in figure 3) on the inside circumference of the rotating ring so that the rotating ring can be lifted away. NOTE! Don't loosen the screws entirely as they may fall inside the heater.
- Next lift the lower insulation ring from its location.
- Load the heater stones meant to be inside the heater as shown in the figure. The stones must cover the resistors (see figure 1).

Image 1

- First install the lower insulation ring in its place (see figure 2).
- The insulation ring must be set in its location and it must not be left to rest on the heater stones.

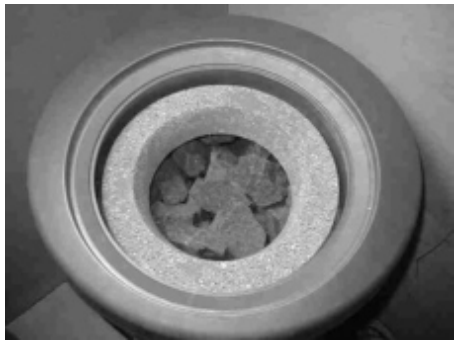


Image 2

- Next install the rotating ring with lids into its location (see figure 3).
- Turn the lid to the desired position before tightening the locking screws.
- NOTE! The lid, however, must not direct steam / hot air directly against the wall or some other obstacle. Note the protection distances!
- Tighten the screws so that the rotating ring is not able to move. However, do not use excessive strength while tightening. This may make the removal of the ring difficult, for example in connection with maintenance.
- Check finally that the rotating ring stays in its place also when the lid is opened.

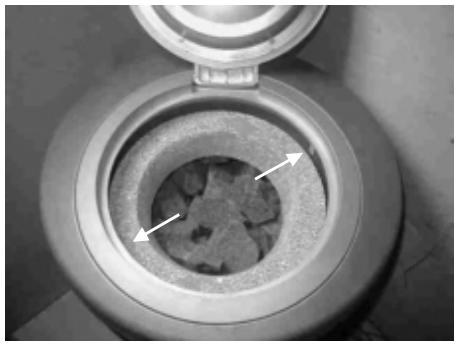


Image 3

- Next install the control pads of the top insulation ring (3 pcs, see figure 4) in their place.
- The control pads have to be placed evenly on the circumference of the lower insulation stone.

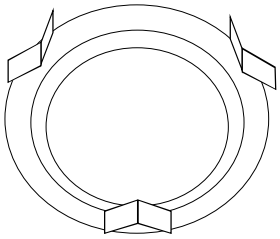
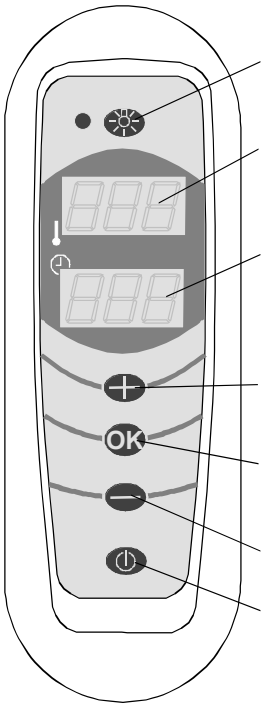


Image 4

- Finally install the upper insulation ring in its place as shown in the figure.
- Check also that the insulation rings are undamaged and in their place.
- NOTE! If the insulation ring or rings are cracked or are otherwise damaged, the heater must not be used until the damaged insulation rings have been replaced!

Image 5

RA 19 – CONTROL



Sauna light control on / off

Stone space temperature display

Operational time display (full power)
Sauna room temperature display (requires installation of a sensor as an accessory)
Simmering mode on

Addition of the setting rate

Saving the setting rates
Connection of full power
Selection of the operational mode

Reduction of the setting rate

Activation of the controller

RA 19 Controller Type 1601-19

Button functions:

While the controller is in standby mode (displays not lit) the clicking of the button will activate the controller. When the controller is active, pressing this button will stop all functions and the controller / heater is disconnected.

The button is used to accept any changes in the settings and / or to move to the next setting / operational mode.

Increases the setting rate. Browsing of the rates can be speeded up by holding the button pressed down.

Reduces the setting rate. Browsing of the rates can be speeded up by holding the button pressed down.

Activates a relay on the circuit board. The heater has its own connector for the lighting controller, voltage 230 VAC and the maximum power 100W. A led is activated next to the light button on the Control panel when the light/s is/are on.

Operational times and control settings:	Operational time (full power)	0 – 2 hours
	Stone space temperature (full power)	250 – 300°C
	Stone space temperature (simmering mode)	150 – 250°C

Thermostatically controlled simmering level
4.5 kW unit is approx. 500 W
6.5 kW unit is approx. 700 W
9.6 kW unit is approx. 1000W

Sauna's temperature display:

Detector OLET 19 obtainable as an accessory can be installed to a (free) wall, for example 300 - 500mm from the ceiling. This sensor is only for the temperature display of the sauna room and therefore its location has no particularly significant meaning. The temperature is shown in the lower display of the control panel alternating with the timing once the full power has been connected on. The controller's electronics detect automatically the sensor once it has been connected.
However, the sensor must not be installed above the heater nor in the corner as then the temperature display may be distorted.

Control panel error displays:

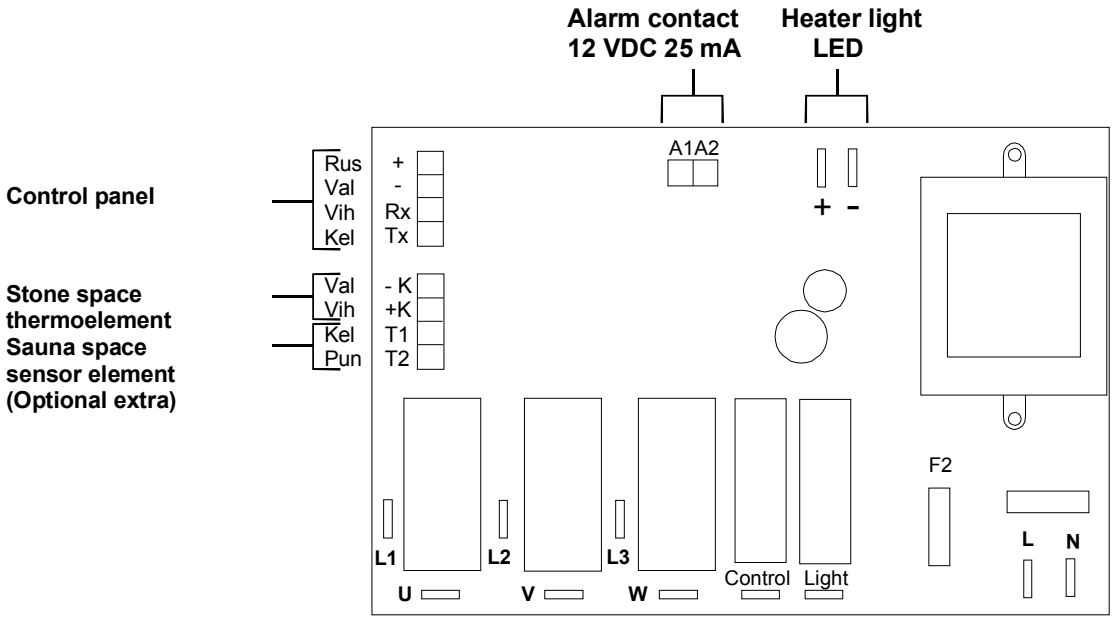
When certain error conditions appear, the control panel is able to identify via its display what may cause the distortion. When a distortion occurs, the displays will show an error notification and the alarm output in the heater is activated. This output can be connected, for example to a buzzer (12V DC max 25 mA), creating also an audible alarm.

SEn Err (Sensor Error) stone space element disconnected or damaged.

SEr Err (Serial Error) serial traffic error between the heater and the controller.

hiL Err (High Limit Error) stone space overheated (>400°C), electronic disconnection.

CIRCUIT CARD OLEA 71



Heater operation

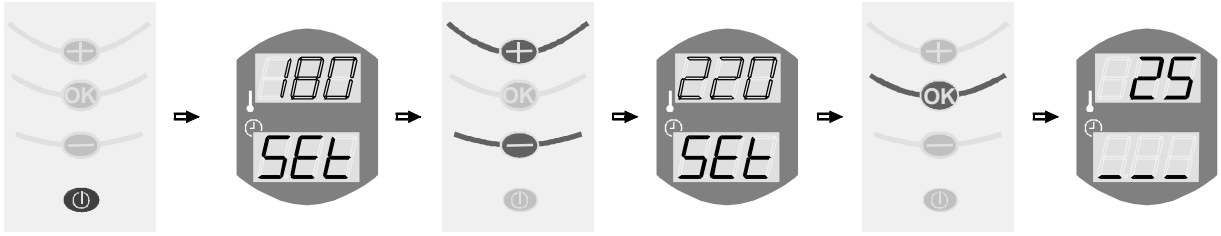
The Rondo heater is a reserving heater as regards its function. This means that the heater has a thermo-insulated stone space which maintains a certain basic heat with simmering mode which is smaller than the heater power. This enables using sauna without long heating times thus differing from the normal heaters which are heated for one-off use. Due to its large stone space the heater offers plenty of heat.

Setting the heater for simmering mode

The main switch disconnecting the electrical output to the heater is located in front of the heater in the lower edge. This switch can be used to disconnect the heater from power if the heater is not used for a long period of time (for example when leaving for a holiday). In normal use this switch should always be in the ON position.

The lid of the heater has to be closed when using the simmering mode.

When the power is connected using the control panel switch button, the upper led display starts flashing and indicates the latest set simmering mode. The latest set temperature will always be stored in the memory. The temperature can be set with the + and - buttons once the upper display is flashing. The setting range for the simmering mode is 150 - 250°C. The change of the setting is stored in memory by pressing the OK button or alternatively by waiting for about 3 seconds when the controller stores the change automatically. Then the heater connects the simmering mode on.



Activate the controller

The saved simmering mode temperature flashes in the upper display.

The simmering mode temperatur can be changed by using the + and - buttons when the display is flashing.

Changed simmering mode Temperature

Accept the change by pressing the OK button or wait appr. 3 seconds.

The heater goes to simmering mode

When the heater is on simmering mode, the lower led display indicates with dashed lines the simmering mode in relation to the requested temperature. The upper display indicates the current temperature of the stone space. The required simmering mode has been reached once all the three dashed lines are lit.

Stone space temperature much cooler than the set temperature

Stone space temperature half-way of the set temperature

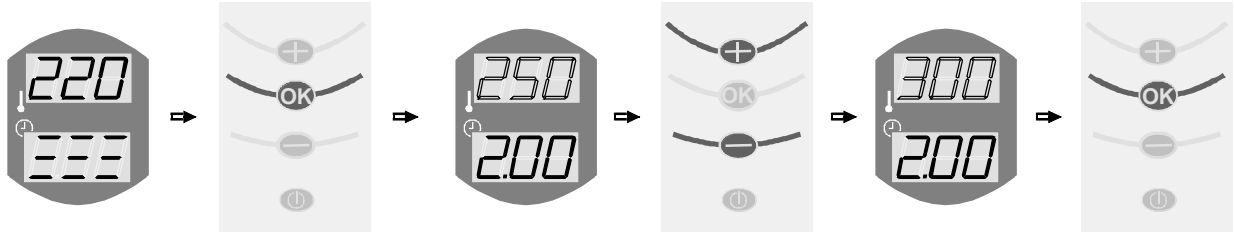
Stone space temperature achieved the set temperature

Setting of the heater on full power

When the heater is set on full power, the heater lid must always be opened!
Transfer from the simmering mode to full power is undertaken by holding down the control panel OK button for about 3 seconds. Then the controller moves to the full power setting mode and the flashing upper display shows the latest set stone space maximum temperature. When the display is flashing the temperature of the stone space can be set to the desired rate by using the + and – buttons. The setting range is 250°C – 300°C.

The change of the setting is stored in the memory by pressing the OK button or alternatively by waiting for about 3 seconds and then the controller stores the change automatically and moves to the next setting point.

If no change in the temperature is desired, the operation can be continued by pressing again the OK button or alternatively by waiting for about 3 seconds and then the controller moves automatically to the next setting point.



The heater is on the simmering mode

Press the OK button and hold down for appr. 3 seconds.

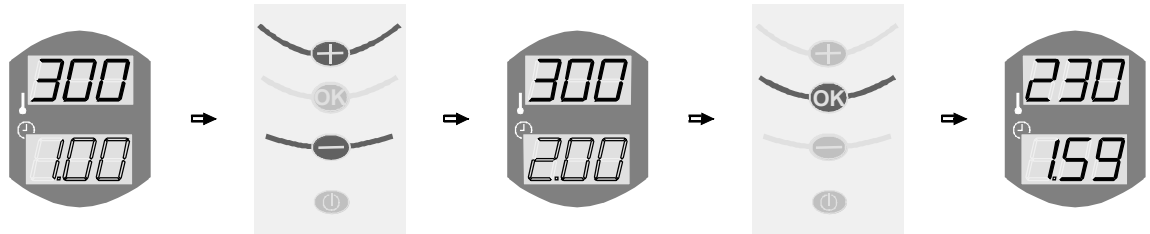
The saved stone space temperature flashes on the upper display.

The stone space temperature can be changed by + and — buttons.

Changed stone space temperature

Save the change by pressing the OK button or wait for appr. 3 seconds.

Next the lower display shows the latest set sauna time by flashing. Also the sauna use time can be controlled by using the + and – buttons as long as the display is flashing. The sauna use time can be set to 0 – 2 hours. The setting is stored just like with the temperature either by using the OK button or by waiting for about 3 seconds.



The stored sauna time flashes on the lower display.

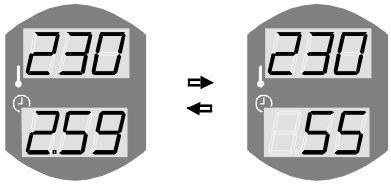
The sauna time can be changed by the + and — buttons.

Changed sauna time

Save the change by pressing the OK button or wait for appr. 3 seconds

The heater goes to full power mode

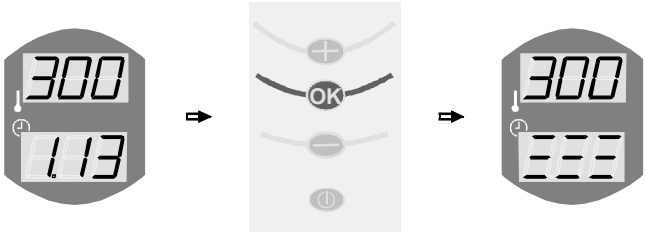
Then the heater is transferred to full power for the desired period. If a sensor element (OLET 19) obtainable as an accessory has been installed in the sauna space, the remaining sauna use time and the sauna room temperature are alternatively shown in the lower display. The upper display shows the temperature of the stone space.



Alteration of the sauna use period and sauna room temperature in the lower display when the sensor element OLET 19 (accessory) is installed in the sauna room

Distinguishing the full power

The heater is automatically transferred to simmering mode once the sauna use period has expired. If use of the sauna is to be interrupted before the sauna use time has expired, it can be done by pressing the OK button and by pressing and holding the button down for about 3 seconds. Then the heater is transferred back to the simmering mode and the stone space temperature is lowered until reaching the set simmering mode temperature.
The lid of the heater can be closed immediately when the heater is transferred to the simmering mode i.e. there is no need to wait for the cooling of the stones.



Heater in full power mode

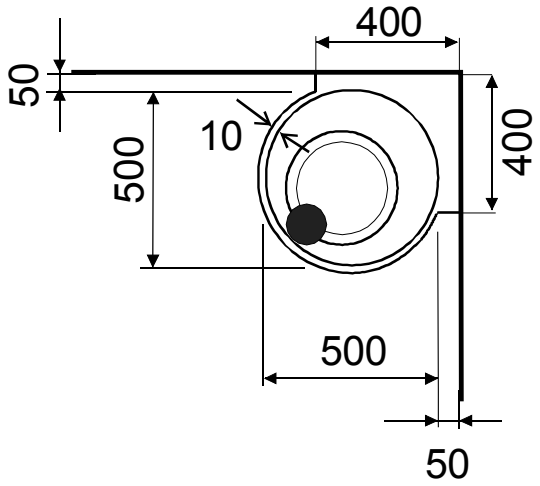
Press the OK button and hold it down for appr. 3 seconds.

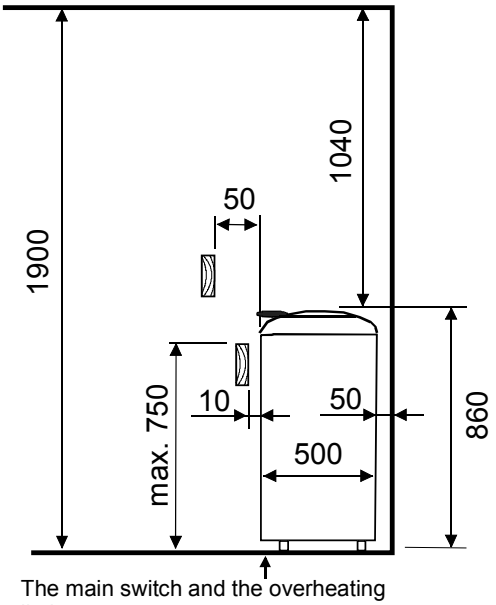
Heater goes to simmering mode.

Heater installation measurements

NOTE ! All the measurements given are in millimetres!
All the measures are minimum distances unless otherwise stated!
Try to rotate the heater and the rotating ring so that the handle when opening the lid does not contact the wall.
The lid must not direct the steam or hot air directly to the wall or some other obstacle.

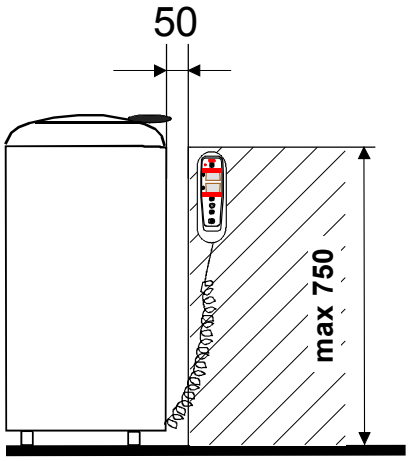
Corner installation



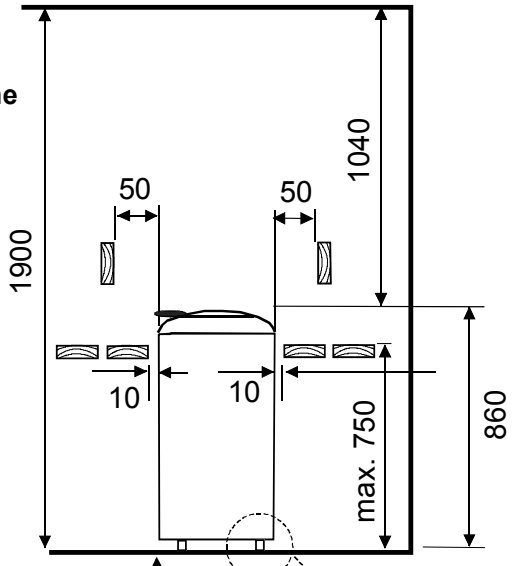


The main switch and the overheating limiter reset

Control panel installation

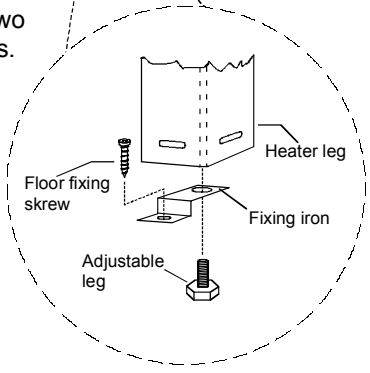


Installation in the middle of the seating boards



The main switch and the overheating limiter reset

Fixing of the heater to the floor. NOTE! Fixing from two (2) of the legs.

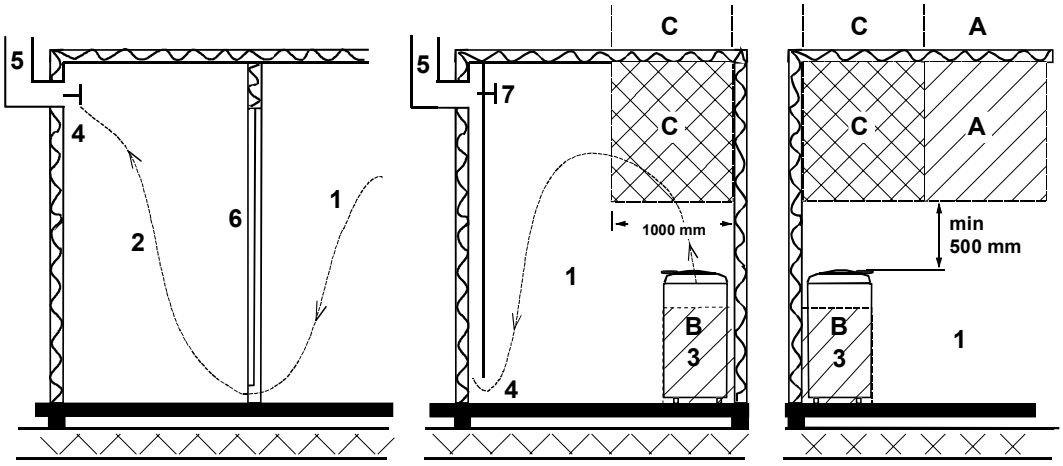


Connecting the heater to the mains

Power	Sauna room *)		Heater connection cable	Fixed installation	Fuse
	Volume	Height	H07RN-F		
kW	m^3	mm			
	min max	min	mm^2	mm^2	A
4,5	5 - 8	1900	5 x 1,5	5 x 1,5	3 x 10
6,5	7 - 13	1900	5 x 1,5	5 x 1,5	3 x 10
9,6	10 - 18	1900	5 x 2,5	5 x 2,5	3 x 16

*) **NOTE! All the capacity measurements have been calculated for fully heat-insulated saunas.**
All reserving heaters, such as Rondo, require a fully heat-insulated sauna.
The insulation has a critical effect on the functioning of the sauna.

Recommended sauna room ventilation



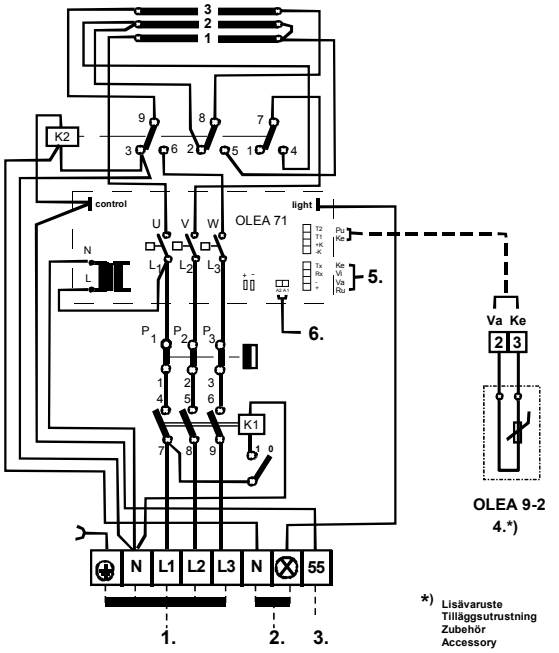
1. Sauna room
2. Washroom
3. Electric sauna heater
4. Exhaust valve
5. Exhaust flue or channel
6. Door to the sauna room
7. A ventilation valve can be installed here to be kept closed while the sauna is heated and during bathing.

Inlet vent can be positioned in the A zone. Make sure the incoming fresh air will not interfere with (i.e. cool down) the sauna heater's thermostat near the ceiling.

The B zone serves as the incoming air zone, if the sauna room isn't fitted with forced ventilation. In this case, the exhaust valve is installed min 1m higher than the inlet valve.

DO NOT ISTALL INLET VALVE WITHIN ZONE C, IF THE SAUNA HEATER'S CONTROL THERMOSTAT IS LOCATED AT THE SAME ZONE.

Teho, Effekt Input, Leistung	Lämpövastukset, Värmeelement, Heating elements, Heizeelement 230 V		
	SEPC 192	SEPC 193	SEPC 194
kW	1500W	2167W	3200W
4,5	1,2,3		
6,5		1,2,3	
9,6			1,2,3



1. Syöttö / Nätet / Stromnetz / Power input.
2. Saunavalo / Bastu belysning / Saunabeleuchtung / Sauna light. max 100W
3. Sähkölämmityksen ohjaus / Signal kontakt / Signal kotakt / Signal contact
4. Tuntoelin) / Sensor) / Fühler) / Sensor)
5. Ohjauskeskus / Styrpanel / Steuergerät / Control panel.
6. Hälytyslähtö / Alarm kontakt / Alarm kontakt / Alarm contact 12 VDC 25mA max

354 SKLH 28 C

Heater controller fixing instructions

1. First fix the wooden controller base to the wall using the screws provided together with the controller. Check before fixing that the base is on the allocated installation area (more accurate description is found in the Heater installation measurements). If necessary, you can use a spirit level to ensure that the base remains straight during the installation.

2. Place the controller as accurately as possible on the wooden base and drill a 2 - 3mm hole through the upper plank to the wooden base. The depth of the hole has no significance as its purpose is to ease the turning of the screw to the wooden base.

3. Then fix the controller using a screw to the wooden base. Once you have ensured that the controller is straight as regards the base, drill through the lower plank and screw the controller also as regards its lower part.

4. **Before the final tightening ensure that the winding cable is not squeezed between the controller and the wooden base as it has to be in the recess meant for it.**

5. **Locate the controller frame into its place. The frame is located in its place by pressing with the hands. Remove, using for example a knife, the pre-worked plastic part reserved for the cable.**

6. **The frame is removed by pressing with a thin rod or a small screwdriver from the grooves (4) and turning carefully outwards.**

Ympäristönsuojeluun liittyviä ohjeita

Tämän tuotteen käyttöiän päätyttyä sitä ei saa hävittää normaalin talousjätteen mukana, vaan se on toimitettava sähkö- ja elektroniikkalaitteiden kierrätykseen tarkoitettuun keräyspisteeseen.

Symboli tuotteessa, käyttöohjeessa tai pakkauksessa tarkoittaa sitä.

Valmistusaineet ovat kierrätettävissä merkintänsä mukaan. Käytettyjen laitteiden uudelleenkäytöllä, materiaalien hydöyntämisellä tai muulla uudelleenkäytöllä teet arvokkaan teon ympäristömme hyväksi.
Tuote palautetaan ilman kiuaskiviä ja verhouskiviä kierrätyskeskukseen.

Tietoa kierrätyspaikoista saat kuntasi palvelupisteestä.

Anvisningar för miljöskydd

Denna produkt får inte kastas med vanliga hushållssopor när den inte längre används. Istället ska den levereras till en återvinningsplats för elektriska och elektroniska apparater.

Symbolen på produkten, handboken eller förpackningen refererar till detta.

De olika materialen kan återvinnas enligt märkningen på dem. Genom att återanvända, nyttja materialen eller på annat sätt återanvända utsliten utrustning, bidrar du till att skydda vår miljö. Produkten returneras till återvinningscentralen utan bastusten och eventuell täljstensmantel.

Vänligen kontakta de kommunala myndigheterna för att ta reda på var du hittar närmaste återvinningsplats.

Instructions for environmental protection

This product must not be disposed with normal household waste at the end of its life cycle. Instead, it should be delivered to a collecting place for the recycling of electrical and electronic devices.

The symbol on the product, the instruction manual or the package refers to this.

The materials can be recycled according to the markings on them. By reusing, utilising the materials or by otherwise reusing old equipment, you make an important contribution for the protection of our environment. Please note that the product is returned to the recycling centre without any sauna rocks and soapstone cover.

Please contact the municipal administration with enquiries concerning the recycling place.

Hinweise zum Umweltschutz

Dieses Produkt darf am Ende seiner Lebens-Dauer nicht über den normalen Haushaltsabfall Entsorgt werden, sondern muss an einem Sammelpunkt für das Recycling von elektrischen und elektronischen Geräten abgegeben werden.

Das Symbol auf dem produkt, der Gebrauchsanleitung oder der Verpackung weist darauf hin.

Die Werkstoffe sind gemäß ihrer Kennzeichnung wiederverwertbar, Mit der Wiederverwendung, der stofflichen Verwertung oder anderen Formen der Verwertung von Altgeräten leisten Sie einen wichtigen Beitrag zum Schutze unserer Umwelt. Dieses Produkt soll ohne Steine und Specksteinmantel an dem Sammelpunkt für Recycling zurückgebracht werden.

Bitte erfragen Sie bei der Gemeindeverwaltung die zuständige Entsorgungsstelle.